

# AVIAN POX IN FALCONRY BIRDS

Avian pox is an infectious and contagious disease characterized by the presence of nodular cutaneous (skin) lesions and scabs on unfeathered areas of the body such as the eyelids, cere and feet. The virus responsible for the disease is Avipoxvirus, a large DNA virus with a well-developed capsid; this virus is not contagious to humans.

Avian pox is a strictly seasonal disease, usually occurring when mosquitos and other biting insects are prevalent. It usually affects passage (first-year) birds. The infection is most commonly transmitted by mosquitoes and other blood-sucking arthropods, which are more abundant after it rains; however, the virus can be transmitted directly between birds or be carried on people or objects from an infected to an uninfected bird. Infected raptors display typical lesions of avian pox, which include first-stage lesions consisting of papules, vesicles and pustules, and second-stage lesions consisting of scabs. Although pox infections are not considered fatal, the loss of an eye due to scratching, the loss of digital (toe) function due to the loss of the blood supply to the digital tendons, and the sloughing of talons are possible consequences. In addition, pox infections on the cere can lead to permanent damage to the nostrils, the nasal septum, the nasal turbinates, and, in extreme cases, to death of the bone of the nasal bridge.

The success in the treatment of avian pox lesions is usually correlated to how promptly the bird is taken to a veterinarian. First-stage lesions are normally easy to treat. The treatment is usually oriented at arresting the development of the lesions into scabs. First-stage lesions are generally electrocauterized and the upper layer of the lesion is surgically debrided and dressed with an antiseptic solution. Scabs are commonly treated using antiseptics.



*Fig. 1. Extensive dry scabbing on the feet of an adult peregrine falcon (Falco peregrinus) affected with avian pox. Avian pox infections are characterized by the presence of scabs on unfeathered areas of the body including the cere, eyelids and the feet. Severe infections on the feet can lead to distal necrosis and loss of the distal digits and talons.*



*Fig 2. Avian pox infection in a saker falcon (Falco cherrug) affecting the cere and eyelids. The scabs are dried and have partially closed the eyes. Note the oiled appearance of the feathers on the frontal area of the head. This is the result of the owner repeatedly applying antibiotic ointment, a practice that is not recommended.*

In some cases, the removal of scabs and the application of dressings over the area are indicated; this is particularly important when dealing with lesions on the cere as it may help to shorten the healing time considerably. Concurrent anti-inflammatory and antibiotic/antifungal therapy can lessen discomfort and prevent secondary infections. During the treatment of raptors with scabbing around the talons, it may be necessary to fit the bird with a modified hood to prevent self-inflicted injuries to the distal areas of the digits by the beak. Affected birds should be housed indoors, away from mosquitoes to prevent spreading the disease to other raptors at the facility. Additionally, hoods and handling equipment from affected birds should be disinfected thoroughly before being used on healthy individuals.

Treatment of lesions should only be performed by a licensed veterinarian. Traditional home-remedies such as application of engine oil or diluted acid from car batteries over pox scabs or the attempted burning off of lesions with heated nails invariably lead to complications such as severe tissue-decay and secondary infections.

In some countries, there are commercially available avian pox vaccines; consult with your avian veterinarian to see if this would be appropriate for your falconry birds.



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*Fig. 3. Large dry scabs covering the entire cere of this peregrine falcon (Falco peregrinus) affected by avian pox. As in the previous case, the plumage is also covered in oil as a result of the application of an ointment. Very often the nares are obstructed and the operculum may become necrotic.*

The treatment of ill birds should always be carried out by a qualified veterinarian.

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## For More Information

For more information on birds, ask your veterinarian for copies of the following AAV Client Education Brochures:

- Aspergillosis in Falconry Birds
- Avian Chlamydiosis and Psittacosis
- Veterinary Care for Your Pet Bird\*
- Basic Care for Companion Birds\*
- Behavior: Normal and Abnormal
- Caring for Backyard Chickens
- Digital Scales
- Feather Loss
- Feeding Birds
- Injury Prevention and Emergency Care
- Managing Chronic Egg-laying in Your Pet Bird
- Signs of Illness in Companion Birds\*
- Ultraviolet Lighting for Companion Birds
- When Should I Take My Bird to a Veterinarian?\*
- Zoonotic Diseases in Backyard Poultry\*

*\*Available in multiple languages. All others are available in English only at this time.*

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